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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/939,008

08/24/2001

Clark I. Bright

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11/07/2003

Office of Intellectual Counsel
3M Innovative Properties Company
PO Box 33427
St. Paul, MN 55133-3427

EXAMINER

JACKSON, MONIQUE R

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,008

Applicant(s)

BRIGHT, CLARK I.

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39,40,50,73-76 and 79-145 is/are pending in the application.
- 4a) Of the above claim(s) 39,40,50,73-76,102,103,109 and 115-145 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 79-101,104-108 and 110-114 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, "light emissive device" species, Claims 79-101, 104-108, and 110-114, in Paper No. 17 is acknowledged. Because applicant did not specify that the election was made with traverse, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 39-40, 50, 73-76, and 79-145 are pending in the application. Claims 39-40, 50, 73-76, 102-103, 109, and 115-145 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 17.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 82, 110 and 111 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 82 recites the limitation "less than about 50 ohms/square" however the term "less than about" renders the claim indefinite given that the term "less than" refers to an amount below a particular end point while the term "about" refers to a range about an end point and not a particular value. Hence, in the instant case, 52 is "less than about 50 ohms/square" given that 52 is less than 53 which is about 50 and hence 52 is less than about 50. Therefore, given that the specification provide no guidance with respect to the term "less than about 50" one having ordinary skill in the art would not be reasonably apprised of the

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scope of the claimed invention and could not interpret the metes and bounds of the claim so as to understand how to avoid infringement. Claims 110 and 111 also recite the term "less than about" in line 2 rendering these claims indefinite for similar reasons.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 79, 84, 85, 87, 88, 90, 91, 98, and 101 are rejected under 35 U.S.C. 102(b) as being anticipated by Stephens (USPN 4,710,426.) Stephens teaches a composite window comprising a substrate material 12, a first dielectric layer 16a, an infrared-reflecting layer 14, a second dielectric layer 16b, and a polymer protective layer 18, wherein the dielectric layers 16a and 16b may be oxides or nitrides of titanium, tungsten, tin, cerium, indium, vanadium and molybdenum, or zinc oxide; the infrared-reflecting layer 14 may be aluminum, copper, or gold (Abstract; Col. 4-Col. 5; Figure 2)

7. Claims 79, 81, 84-88, 92, 93, 95-99, 108, and 112 are rejected under 35 U.S.C. 102(b) as being anticipated by Treger et al (USPN 5,681,666.) Treger et al teaches a light transparent multilayer barrier comprising a plurality of very thin, alternating thin layers of an inorganic material and an organic material on a flexible substrate, such as a PEN substrate, wherein the inorganic material may be any metal oxide or mixture including silicon oxides or aluminum

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oxide, or a nitride such as an amorphous nitride or any suitable metal nitride; and the organic material may be uncrosslinked or crosslinked including acrylate polymers (Col. 8, lines 4-59; Examples.) Treger et al teach that the thickness of the inorganic layers is generally from about 100 angstroms to 10,000 angstroms and the thickness of the organic layers is generally in the range of 100Å to 5µm (Col. 3, lines 29-42.)

8. Claims 79, 80, 83-85, 87-90, 94, 95, 97-99, 104, 108, and 110-114 are rejected under 35 U.S.C. 102(e) as being anticipated by Bulovic et al (USPN 6,352,777.) Bulovic et al teach a composite suitable for optoelectronic devices such as those instantly claimed comprising a substrate and multiple transparent electrodes layers that may be electrically connected in parallel separated by one or more organic layers wherein the transparent electrode layers may be ITO or zinc oxide, the substrate may be a flexible substrate including a polymer substrate such as polystyrene and may include an optional thin polymer layer to smoothen the substrate surface, and the substrate may be provided with a transparent metal layer such as a silver layer or a transparent dielectric layer such as silicon oxide; and the composite may further comprise a silicon nitride protective layer (Abstract; Col. 5, Col. 10-12; Col. 7, line 58-Col. 23, line 65; Col. 26-27; Col. 29; Col. 30, lines 45-55; Col. 31.)

9. Claims 79-80, 83-90, 94, and 104-107 are rejected under 35 U.S.C. 102(e) as being anticipated by Chou (USPN 6,361,885.) Chou teaches organic electroluminescent materials and devices made from such materials wherein the device may be a light emissive device including an organic light emitting device or a field emission device, and the device comprises a substrate such as a plastic substrate, two electrode layers on the substrate separated by an organic polymer layer wherein the electrode layers can be made from materials known in the electronics and solid

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state device arts such as conductive metals or oxides including ITO, zinc oxide, indium oxide (Abstract; Col. 1-2; Col. 6; Col. 9; Col. 10, lines 1-40; Figure 4.)

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 82 and 110-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bulovic et al. The teachings of Bulovic et al are discussed above. Bulovic et al do not specifically teach the sheet resistance, visible transmittance and permeability properties of the composite, however, it would have been obvious to one having ordinary skill in the art at the time of the invention to determine the optimum number of layers and layer thickness to provide the desired properties including sheet resistance, transmittance and permeability of the composite barrier taught by Bulovic et al based on the desired end use.

12. Claims 82 and 110-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou. The teachings of Chou are discussed above. Chou does not specifically teach the sheet resistance, visible transmittance and permeability properties of the composite, however, it would have been obvious to one having ordinary skill in the art at the time of the invention to determine the optimum number of layers and layer thickness to provide the desired properties including sheet resistance, transmittance and permeability of the composite barrier taught by Chou based on the desired end use.

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Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by assignee must fully comply with 37 CFR 3.73(b).

14. Claims 79-101, 104-108, and 110-114 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of copending Application No. 10/317623. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one having ordinary skill in the art to combine dependent claim limitations and further to determine the optimum layer thickness to provide the desired barrier properties for a particular end use.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428.

The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in black ink, appearing to read 'm. jackson', with a stylized flourish at the end.

Monique R. Jackson
Primary Examiner
Technology Center 1700
October 28, 2003